CHAPTER 1 Introduction to Mitigation Planning

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Appendix A. List of Changes in the Plan from 2004 to 2007.

1.0 Mitigation Requirements

The Disaster Mitigation Act of 2000, § 201.4, requires States to update their approved mitigation plans every three years. The State of Hawai'i had their first mitigation plan approved on October 27, 2004, three days before a declared flooding disaster. The mitigation plan demonstrates the state's commitment to reduce the risks from natural hazards, and serves as a guide for mitigation practice at all levels of state government, including the decision makers. The plan details how the state will address planning for natural hazards and identifies resources committed to the process to ensure implementation.

DMA 2000 specifies that the plan must meet certain basic criteria for formal approval. Each criterion must receive a satisfactory score for the plan to be approved. The plan must include the following:

 The mitigation strategy should be based on local and state vulnerability analyses and risk assessments;

- The State must describe how they will coordinate with local mitigation planning efforts:
- The State must describe how they will provide funding or technical assistance to local governments;
- The State must discuss how they will prioritize jurisdictions that will receive mitigation planning and project grants and other State assistance;
- There must be a formal plan maintenance process; and,
- The plan must be adopted by the State in order to be accepted by FEMA.

Hawai'i State has long been engaged in natural hazard mitigation planning, as detailed in the second chapter. The information in this document forms the plan that meets the above basic criteria, as well as the more specific information needed to protect the State of Hawai'i from disaster. Although this plan is intended to address natural hazards specifically, the State of Hawai'i recognizes that comprehensive multi-hazard planning will also reduce risk from hazardous materials and substances, human-induced disasters, such as oil spills, and national security threats, especially where any of these situations may also occur in conjunction with a natural hazard event. More specific plans are being prepared in the state to address human-induced hazards and homeland security issues. The primary concern of the State of Hawai'i is to protect the public from all types of disasters and to prioritize those programs and actions that save lives.

In order to adequately address all of the criteria required in DMA 2000, this chapter has used the formatting prepared in guidance materials provided by the Federal Emergency Management Agency. The requirements for the mitigation plan update have also been considered in the development of this chapter to address the process for updating the plan as well.

There have been extensive changes made throughout the document in the update process, including the addition of information on recent hazards and assessments. The detailed list of changes has been included in the appendix to this chapter, Chapter 1 Appendix A.

The rest of this chapter will discuss the information requested and where it has been provided in this extensive plan.

1.1 Adoption of the Plan

Requirement §201.4(c)(6) and §201.4(c)(7):	The plan must:
	 be formally adopted by the State prior to submittal to [FEMA] for final review and approval [and]
	 include assurances that the State will comply with all applicable Federal statutes and regulations in effect with respect to the periods for which it receives grant funding, in compliance with §13.11(c). The State will amend its plan whenever necessary to reflect changes in State or Federal laws and statutes as required in §13.11(d).
State Plan Adoption	The Hawai'i State Multi-Hazard Mitigation Plan, 2007 Update has been adopted by the State of Hawai'i. The Proclamation signed by the Governor of the State of Hawai'i precedes all other information in this document. The Proclamation demonstrates the commitment by the State of Hawai'i to meet requirements and remain in compliance with federal statutes and limitations. The document adopts the hazard-specific and local mitigation plans by reference.

1.2 Planning Process

DMA 2000 §201.4(b) requires that the State coordinate with other State agencies, appropriate federal agencies, and interested groups during the planning process to build partnerships with other agencies and interested groups to facilitate data gathering, analysis, and later implementation of mitigation strategies. §201.4(c)(1) requires that the State document this planning process.

This section includes the following three subsections as follows:

- Documentation of the Planning Process
- Coordination Among Agencies
- Integration with Other Planning Efforts

As described in detail in **Chapter 2: Planning Process**, the planning process is well documented for the state, with reference to the county planning efforts (local mitigation plans). The Hawai'i State plan is grounded in the county planning efforts with the acknowledgment that an integrated, comprehensive planning process must extend into all communities in the state inasmuch as the plan addresses government agency concerns. The hazard mitigation public awareness and education campaign has used various platforms (including public television and radio, state and local newspapers, public mailings, public forums, local libraries, and the internet) and extensive

partnership efforts to provide information to the public, and to incorporate the general public into the planning processes. Partners in mitigation at the federal level have initiated public awareness programs. Significant efforts have been made by the NOAA National Weather Service in Hawai'i for tsunami and hurricane awareness. Regional organizations, such as the Pacific Risk Management Ohana and the Pacific Climate Information System, target primary efforts in engaging communities through education and public awareness.

Requirement §201.4(c)(1):	[The plan must include a] description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated. Narrative on Process for Updated Plan
Planning Process	The Executive Summary details the process for establishing mitigation planning in the state and for updating the 2007 plan. The section on the mitigation plan update process details the ways that the hazard mitigation community contributed to updating the plan. It also discusses the challenges to the process and suggests solutions to evaluate and improve the process (which are discussed further in Chapter 8). Chapter 2 of this document outlines the planning process to establish hazard mitigation planning in the state. This process was developed collaboratively over the last twelve years. In 1998, the Hawai'i Statewide Hazard Mitigation Forum was established to oversee planning activities for hazard mitigation and to act as an advisory body to the Governor through the Adjutant General. Hawai'i State Civil Defense provides staff (the State Hazard Mitigation Officer) and meeting space. Seventeen elected members serve on the Forum, with invitation and participation extended to other members from the community, including the private sector. The four counties have at least one standing member to represent local interests. Additional details have been provided in Chapter 2.
	The Statewide Hazard Mitigation Forum embarked on an education and public awareness campaign as its first major activity. This required the development of a website, www.mothernature-hawaii.com. The website was designed to provide basic information on hazard and on what types of mitigation actions could be taken by homeowners and businesses. The site has expanded to include sections in each county on planning, so that the documents would be available to residents and to increase review, input, and overall participation in planning. Hazard awareness and trainings to improve disaster mitigation have been ongoing since the adoption of the 2004 plan, funded through agencies and organizations that participate in the State Hazard Mitigation Forum and hazard advisory committees. In the update process, experts who have been implementing hazard mitigation actions from their accumational responsibilities reviewed the

mitigation actions from their occupational responsibilities reviewed the sections of the plans that pertained to their expertise. They provided

significant input that included additional engagement with the public, new studies based on lessons learned from three declared disasters, additional tools and decision support products available by private organizations, recommended mitigation actions, and policy guidance. Many of the contributors participate on state advisory committees and the forum.

Requirement The mitigation planning process should include coordination with other §201.4(b): State agencies, appropriate Federal agencies, [and] interested groups. The purpose of the State of Hawai'i Hazard Mitigation Forum has been to build coordination and cooperation among agencies, in addition to advising the state on appropriate mitigation needs and measures. The partnerships have resulted in extensive contribution from the private sector for the public awareness and education campaigns. Many of the projects would not be implementable without multi-agency, multi-sector collaboration. The information is detailed in chapter two and in the chapter two appendices. The information for plan coordination has also contributed to the capacity building efforts of the state, included in chapter six. The plan update process highlighted areas that could be improved in coordination for information sharing and data management. Recent disasters demonstrated that more coordinated efforts should be **Plan Coordination** undertaken among agencies. With the development of new hazard working groups and advisory committees working on different hazard problems, the State Hazard Mitigation Forum has moved to include these groups in the Forum meetings to ensure that there is better information sharing. While the State Hazard Mitigation Forum primarily provides a forum for plan coordination among agencies at all governmental levels, the update process highlighted the need for strategic planning to improve this coordinating function. This will be the focus of the next three years. In addition, the mitigation plan update process was assisted initially by the Pacific Risk Management 'Ohana (PRiMO), which is a network of federal and state partners in the Pacific, of which FEMA is a participating member. Discussions at their annual meeting provided assistance for the State Plan, but also targeted tools and products that can be used for

Requirement §201.4(b):	[The Standard State Plan must] be integrated to the extent possible with other ongoing State planning efforts as well as other FEMA mitigation programs and initiatives.
Integration with other Planning Efforts	The State of Hawai'i Hazard Mitigation Forum ensures that the other state agencies are aware of the hazard mitigation planning process. By encouraging widespread membership, the State has built awareness of the planning efforts statewide. In this way, the plan has been enhanced

updating County Mitigation Plans in the next few years.

by proactive programs that reduce hazards through an agency's particular mandate and planning effort. These efforts are described in **Chapter 6: Current Mitigation**, which details planning efforts across the state that encourage disaster risk reduction.

One example of this coordinated effort is that the State of Hawaii Office of Planning and divisions that deal with hazards reviewed the plan update and provided extensive input into the process. They also contacted the Land Use Commission that they work with extensively and sought input into the mitigation plan update. The Office of Planning's Ocean Resource Management Plan, a coordinated effort in the State of Hawai'i, has prioritized coastal hazards and formed a working group that Major General Lee participates to ensure coordination with State Civil Defense activites. The multi-agency review and gap analysis in the State Plan update encouraged contributions that build upon and integrate with other State planning efforts. Efforts to improve Building Codes require multiagency participation in the State Building Code Council. Addressing Drought risks requires coordinated efforts through the Drought Council and the County Drought Committees. For each hazard addressed in the state plan, there are multi-agency tasks forces to look at specific hazard issues or planning issues. By having the coordinating mechanism of the State Hazard Mitigation Forum, there is a forum for sharing information on planning processes across the state and in the counties. These coordinating efforts have proven essential to the State, but these will be improved in the upcoming three years as the Forum develops a strategic plan for activities and works with the counties in updating their local mitigation plans.

1.3 Risk Assessment

DMA 2000 §201.4(c)(2) requires that States undertake a risk assessment that provides the factual basis for developing a mitigation strategy. This provision encourages States to produce a meaningful analysis of the hazards and vulnerabilities that affect them, enabling States to prioritize jurisdictions or geographic areas to receive funding and technical assistance for conducting more detailed local risk and vulnerability assessments. The requirement relies on the "best available" data, which has proven significant as three declared disasters have increased the amount of disaster-related studies in the past three years.

This section includes the following six subsections as follows:

- Identifying Hazards
- Profiling Hazard Events
- Assessing Vulnerability by Jurisdiction
- Assessing Vulnerability of State Facilities
- Estimating Potential Losses by Jurisdiction
- Estimating Potential Losses of State Facilities

Requirement §201.4(c)(2)(i):

[The risk assessment shall include an] overview of the type ... of all natural hazards that can affect the State...

Chapter 3 of this document details the hazard risks for the State of Hawai'i, although it primarily discusses natural hazards. It does, however, include an overview of technological and human-induced hazards that could further exacerbate conditions in a natural hazard. For the 2007 Plan Update, Climate Variability and Change have been identified as a separate section because it will have impacts on other hazard occurrence, but the aspects of climate change need to be understood and considered separately as well. Because of the disasters in the State of Hawaii that resulted in three major disaster declarations and fire emergency declarations, there have been new studies initiated. The dam failure was significant and has initiated a number of efforts for dam inspection. As much as possible, the hazard histories and identifications have been updated in all sections.

Identifying Hazards

The types of known and recorded losses for the natural hazards are incorporated into the hazard profiles. The hazards identified were in accordance with the county identification of hazards and the State Hazard Mitigation Forum attention to hazards, including the advisory committees on multi-hazard science, hurricanes, and earthquakes. It also incorporates consideration from other committees under different programs in partnership with the forum, such as the Erosion Subcommittee of the Marine and Coastal Zone Advisory Group that advises the Hawai'i Coastal Zone Management Program, which participates in the Hazard Mitigation Forum. In addition to the natural hazards, technological hazards like dam failures, have been included, especially with the relevance to the failure of the dam in Kaua'i during March 2006.

Chapter 4 describes the critical assets of the State of Hawai'i, with extensive reference to the details in the county plans. Chapter 5 discusses the vulnerability assessment of the state to natural hazards. There are still better analyses that need to be conducted to provide real figures and data to understand risk and vulnerability. An initial effort conducted by USGS in 2006 in Hawaii has revealed characteristics of the population living in tsunami evacuation zones. This type of analysis can be applied across hazards. As tools, such as HAZUS software, become upgraded and GIS maps become improved through imaging in programs such as the Map Modernization project, there will be additional updated information that will improve the ability of the State to assess vulnerability and sensitivity by sector to hazard risks.

Requirement §201.4(c)(2)(i): [The risk assessment shall include an] overview of the location of all natural hazards that can affect the State, including information on previous occurrences of hazard events as well as the probability of future

hazard events, using maps where appropriate.

Chapter Three of the plan provides a discussion of past hazard events, including as much available historical data that could be obtained on damages that occurred (e.g., costs of recovery, property damage, lives lost, etc. to the extent practicable), level of severity (i.e., flood depth or extent, wind speeds, earthquake intensity), duration of event, location, and date of occurrence. The hazards have information from the county plans that specify locations, but the detailed GIS maps and detailed resolution of images is at the county level. This is one of the reasons that the State has insisted on integration with the County planning efforts and the reason for encouraging the counties to initiate their mitigation planning processes first, because the disasters happen in localized areas and most of the responsibility for addressing these risks also lies at the county level.

Hazard Event Profiles

In Chapter 3, there is discussion to describe research and analyses undertaken to determine the probability of occurrence of future hazard events and their magnitudes. Some of the HAZUS analyses have been included in the Chapter 3 Appendix. A list of the research has also been included because the body of work is quite extensive.

With three presidentially declared disasters in the past three years, there are new studies that have emerged related to the disasters. Those that have been completed have been included in the text, references, and appendices of Chapter 3. The studies that are underway and will provide additional information for improving the risk and vulnerability assessments will be included in Chapter 5 on Risk and Vulnerability Assessment and in Chapter 6 on proposed mitigation actions.

In addition, the hazard analysis has been expanded to expand information on climate variability and change, homeland security, terrorism, pandemics, dam failure, health risks, and other human-induced hazards

The appendices to this chapter detail new hazard assessment tools and products and decision-support tools, as well as inventories of available tools and products to assess hazard risks.

Requirement §201.4(c)(2) (ii):

[The risk assessment shall include] an overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in local risk assessments. The State shall describe vulnerability in terms of the jurisdictions most threatened by the identified hazards, and most vulnerable to damage and loss associated with hazard events...

Vulnerability Assessment

The plan identifies the counties that are most threatened and vulnerable to hazards and the process used to identify them, based on scientific review and studies, an average annualized loss study, and historical data on recurrence. Each county in the state has conducted a risk and vulnerability assessment and developed a hazard mitigation strategy. The county plans formed the basis of analysis for the State plan. The information has been included in much greater detail in the county plans, and is referenced in the State Plan, but has not been repeated.

Critical State-owned facilities and lands at risk have been identified in the plan. Property schedules are available for the state and aggregated information has been prepared in summary. The State overview of FIRM maps have been included. The general flood hazard maps are available, but are in the process of being updated, as only two counties have completed the upgrade to the dFIRM maps. Even so, the dFIRMs are based on old maps and the new digital elevation models are being included. Furthermore, the State is transitioning over the next year to using HAZUS-MH.

Requirement §201.4(c)(2) (ii):

[The risk assessment shall include an] overview and analysis of the State's vulnerability to the hazards described in this paragraph (c)(2), based on estimates provided in ...the State risk assessment. ... State owned critical or operated facilities located in the identified hazard areas shall also be addressed...

Vulnerability of State Facilities

The plan describes State infrastructure and facilities, derived from an inventory of state-owned or operated structures, located in areas subject to hazards described previously. The description includes the uses, approximate sizes, types, and values of facilities and infrastructure, and identification of those facilities - classified as critical. The state has developed assessments, but the details of the study cannot be publicly distributed. These are available to emergency managers and government personnel. Information on the vulnerability of State facilities can be better analyzed as the HAZUS model upgrades are finished. At this point, an assessment has been done of the University of Hawaii structures. The methods can be applied to risk assessments of State structures. This will require work in integrating data and will require extensive adherence to protocol in data-sharing among agencies.

Requirement §201.4(c)(2) (iii):

Requirement §201.4(0)(2) (111):

[The risk assessment shall include an] overview and analysis of potential losses to identified vulnerable structures, based on estimates provided in local risk assessments...

The risk assessment shall include the following.]...[a]n overview and analysis of potential losses to identified vulnerable structures, based on estimates provided in ...the State risk assessment. The State shall estimate the potential dollar losses to State-owned or operated buildings, infrastructure, and critical facilities located in the identified hazard areas.

Some HAZUS analysis has been conducted that provides information about losses. These loss estimates have been used and in the state's HAZUS program, although studies related to recent disasters and the transition to an upgraded HAZUS program mean that data is still being improved. Examples of these loss estimates have been included in the appendix to Chapter 5 Risk and Vulnerability Assessment. Loss estimates are different based on hazard, and currently the losses that are best calculated involve those for seismic and hurricane risk, as these have been the result of extensive studies, discussed in Chapters 2 and 3.

Chapter 4 details the State assets including socio-economic and population analyses. This chapter described the people, infrastructure, property, and environmental assets deemed important to the state. The various hazards in combination with these assets and important features of the state produce the damage or becomes defined as a disaster. The chapter further discloses the socio-economic details that contribute to vulnerability to crises.

Potential Losses

For State-owned infrastructure and buildings, the building values and the content values from state tax and property assessments and insurance have been used in determining figures included in this plan.

Nonetheless, some details cannot be distributed because of threat of potential misuse of information. Aggregated data is publicly available. As much as possible, data that looks at losses from previous hazards and extrapolates that risk has been included.

The current GIS system at the state does not have detailed enough data and the databases have not been integrated that enable the type of rich analyses that we need to produce good loss data. The Chapter 5 Section 8 risk and vulnerability assessment based on tsunami evacuation areas has some of the rich detail needed to make analyses, but this data needs ground-truthing. At this juncture, the State GIS system does not have access to the property cost information. As mentioned previously, there need to be memoranda of agreement to enable the State agencies to share data and for the private sector to provide the type of data needed for loss estimations. This will be one of the gaps that will be pursued in the upcoming three years.

1.4 Mitigation Strategy

According to § 201.4(c)(3) the plan must include a mitigation strategy that provides the State's blueprint for reducing the losses identified in the risk assessment. The strategy should include goals and objectives that are based on the risk assessment and are consistent with goals from other State and local jurisdictions' plans and policies. These goals and objectives will guide the State's strategies and selection of activities to achieve the desired, long-term hazard protection. The State must also assess its own as well as its local jurisdictions' capabilities to staff programs or projects and fund measures to achieve the goals of the plan. The State must also identify funding from federal, local, and private sources to complement its own resources.

This section includes the following five subsections as follows:

- Hazard Mitigation Goals
- State Capability Assessment
- Local Capability Assessment
- Mitigation Measures
- Funding Sources

Requirement §201.4(c)(3) (i):	[The mitigation strategy shall include] a description of State goals to guide the selection of activities to mitigate and reduce potential losses.
Hazard Mitigation Goals	The State's goals as written in the plan reflect the State's vision for long-term hazard mitigation and loss reduction. The goals are discussed in Chapter 7 of this Plan. These were developed through extensive discussion, meetings and prioritization in the State Hazard Mitigation Forum. Additional objectives were added by the Forum members. The goals were further adopted by the State as part of this plan.
	Hawaii State's highest priority remains the public health and safety of its citizens. These goals, along with their corresponding objectives, guide the development and implementation of mitigation measures. Members of the Forum and State advisory committees contributing to mitigation in the state reviewed and updated goals based on additional studies in the last three years. Because of the goals for public health and safety, the last few years have increased efforts in improving access to hazard shelters and in improving building codes. The State has made considerable progress in these areas in the last three years.

[The State mitigation strategy shall include]: a general description and Requirement analysis of the effectiveness of local mitigation policies, programs, and §201.4(c)(3) (ii): capabilities. The Local Capability Assessment has been based on the county mitigation plans. The four counties provided contributions to the State plan update, as they provided additional studies and informational details. They also proposed projects to meet gaps in risk reduction. The fire and drought disasters that occurred on Maui and Hawaii during the months of **Local Capability** June and July showed that the local emergency management Assessment organizations could benefit from more staff, although they did benefit from assistance by the State. All of these plans detail their capability and current mitigation strategies, as well as initiatives, plans, and other

end of Chapter 6.

contributions to the mitigation efforts. These are included in tables at the

[The State mitigation strategy shall include] a discussion of the State's pre-and post-disaster hazard management policies, programs, and capabilities to mitigate the hazards in the area, including: Requirement An evaluation of State laws, regulations, policies, and programs §201.4(c)(3) (ii): related to hazard mitigation as well as to development in hazardprone areas; [and] A discussion of State funding capabilities for hazard mitigation projects. In Chapter 6 of this plan, the State includes a capability assessment that provides an overview of its financial, legal, and programmatic ability to carry out mitigation activities to achieve its mitigation objectives and, ultimately, its goals. The assessment of the State's capability enables **State Capability** ongoing implementation of the plan and projects by identifying resources Assessment and capacity to carry out mitigation activities. Plans, regulations, and initiatives that are ongoing or are planned in the upcoming months that will improve mitigation efforts are detailed in Chapters 6 and 7.

Requirement §201.4(c)(3) (iii):	[State plans shall include] an identification, evaluation, and prioritization of cost-effective, environmentally sound, and technically feasible mitigation actions and activities the State is considering and an explanation of how each activity contributes to the overall mitigation strategy. This section should be linked to local plans, where specific local actions and projects are identified.
Mitigation Measures	Chapter 7 details proposed mitigation actions based on priorities, goals, and objectives determined through the Statewide Hazard Mitigation

Forum. These actions have been proposed to meet identified gaps and address mitigation needs in the state.

Requirement §201.4(c)(3) (iv):	[The State mitigation strategy shall include] [i]dentification of current and potential sources of Federal, State, local, or private funding to implement mitigation activities.
Funding Sources	Current funding sources for ongoing projects and actions are discussed in Chapter 7. However, several of the projects are identified in the plan to enable the state to seek funding sources through grants and legislative appropriations because they have been included and prioritized in this plan. The private sector has provided considerable support for the public awareness and education campaigns. Federal agencies besides FEMA have contributed significantly to risk reduction, including the USDA Natural Resources Conservation Service, the National Oceanic and Atmospheric Administration, the US Army Corps of Engineers, and the US Geological Survey, to mention a few.
	The project nomination sheets, now in an addendum to the plan, ask proposers to consider the range or sources for funding activities.

1.5 Local Mitigation Planning Coordination

§201.4(c)(4) requires that Standard State Mitigation Plans describe the process by which they provide funding and technical assistance for the development of local plans. This section also requires a description of the State's processes for incorporating local planning efforts into the statewide plan and prioritizing assistance to local jurisdictions.

This section includes the following three subsections as follows:

- Local Funding and Technical Assistance
- Local Plan Integration
- Prioritizing Local Assistance

Requirement §201.4(c)(4)(i):	[The section should include a] description of the State process to support, through funding and technical assistance, the development of local mitigation plans.
Local Funding and Technical Assistance	The County Mitigation Plans have been completed for all counties in Hawaii State. Each of these plans has a detailed description on the maintenance of these plans. Further discussion and reference has been included in Chapter 8 on the ongoing maintenance and implementation of

the Mitigation Plans. Each county has organized a consultative committee on hazard mitigation that mirrors the State Hazard Mitigation Forum to ensure implementation.

The state will have an additional local mitigation plan in 2008, as the University of Hawaii Systemwide Multi-Hazard Mitigation Plan is scheduled for completion. The plan is developing a detailed building and facility risk and vulnerability assessment using HAZUS to understand risks to various hazards and to identify appropriate mitigation measures.

Requirement §201.4(c)(4)(ii):

Local Plan Integration

The local plans are integrated and become the foundation of the State plans. They have been adopted by the Governor by reference. In the State Plan update process, there has been consultation with the county emergency managers to get updates for the mitigation plan because the disasters of the past three years occurred in all four counties. The specific hazard plans, such as the drought plan, have county specific sections for plan integration as well. The local mitigation actions and updated information is necessary in order to update the state plan.

As members of the State Hazard Mitigation Forum, the counties have extensive interaction and integration of planning efforts with the State. The State plan was originally developed based on the county plans. The update strategy has been to include the counties in the process, as described in the Executive Summary. The State intends to support the counties in the updated planning efforts in the next three years.

Requirement §201.4(c)(4)(iii):

[The section shall include] criteria for prioritizing communities and local jurisdictions that would receive planning and project grants under available funding programs which should include:

- consideration for communities with the highest risks,
- repetitive loss properties, and
- most intense development pressures.

...[For] non-planning grants, a principal criterion for prioritizing grants shall be the extent to which benefits are maximized according to a cost benefit review of proposed projects and their associated costs.

Prioritizing Local Assistance

The plan describes the criteria the State has developed for prioritizing local jurisdictions to receive planning and project grant assistance. Most of the decisions for mitigation grants that receive FEMA funding are made through the State Hazard Mitigation Forum. Forum members have also used their agency and organizational budgets to contribute to mitigation actions that fall in line with mandated duties defined in the scope of organizational and administrative responsibilities.

1.6 Plan Maintenance Procedures

The plan maintenance procedures section requires that States implement a mechanism to keep the plan updated to reflect current conditions. §201.4(c)(5) requires States to have an established method and schedule for monitoring, evaluating, and updating the plan. This includes a review of goals, objectives, and activities the State is undertaking.

The Standard State Plan must be updated and resubmitted to FEMA for approval every three years, as required in §201.4(d). While the Rule does not require the plan to be updated after a disaster declaration, FEMA highly encourages States to review it and determine if the goals, objectives, and activities still meet the needs of the State. If deemed necessary, these should be reprioritized to reflect current conditions. It is especially important to update the plan if the disaster is the result of a new hazard or is not addressed in the plan. This post-disaster update can be an annex to the plan.

This section includes the following two subsections as follows:

- Monitoring, Evaluating, and Updating the Plan
- Monitoring Progress of Mitigation Activities

Requirement §201.4(c)(5)(i):	[The Standard State plan should detail the State's] established method and schedule for monitoring, evaluating, and updating the plan.
	Hawai'i State has established a process to implement mitigation throughout the state and to monitor progress of the plan implementation through the establishment of the Hawaii State Hazard Mitigation Forum. For actual projects that are funded through the federal grants, requirements will be strictly enforced, including all reporting.
	The Forum monitors new laws and procedures in the State, as well as in all counties, to enforce new policies as they pertain to mitigation.
Monitoring, Evaluating, and Updating the Plan	The Plan Update Process has revealed areas that need improvement. To this end, the State plans to start a strategic planning process and the State Hazard Mitigation Forum has already identified a strategic planning subcommittee to review the mitigation planning process, look at the gaps identified in mitigation planning, and to think about how to improve coordinating mechanisms that will ensure a smoother planning process. In addition, the State will be considering easier ways to implement plan updates, such as annual reviews of projects and potential software applications to manage data better.

Requirement §201.4(c)(5) (ii) and (iii):

[The Standard State plan maintenance process should include:]

- A system for monitoring implementation of mitigation measures and project closeouts, [and]
- A system for reviewing progress on achieving goals as well as activities and projects in the Mitigation Strategy.

Monitoring Progress of Mitigation Activities

Progress and monitoring of the plan is detailed in Chapter 8, and conducted by the Hawai'i State Hazard Mitigation Forum with staffing assistance from the Hawaii State Civil Defense Agency. Additional contributions to monitoring have been made by the Advisory Committees.

The Strategic Planning effort for the State Hazard Mitigaiton Forum will be initiated in later 2007 to begin improving the process for monitoring projects. The State realizes that this is important because there are a number of projects recently funded with HMGP and PDM grants. The Forum will identify a process for monitoring projects and assessing the extent the projects contributed to overall mitigation.

The FEMA Pacific Area Office conducted an assessment of HMGP projects after the 2006 Kiholo Earthquake and the projects did well, demonstrating the effectiveness of mitigation planning. The State recognizes the need to develop a monitoring process that ensures collection of this type of information that is integrated into the planning efforts. This will be done through the strategic planning process.